

# Dietary Approach to Prevent CVD

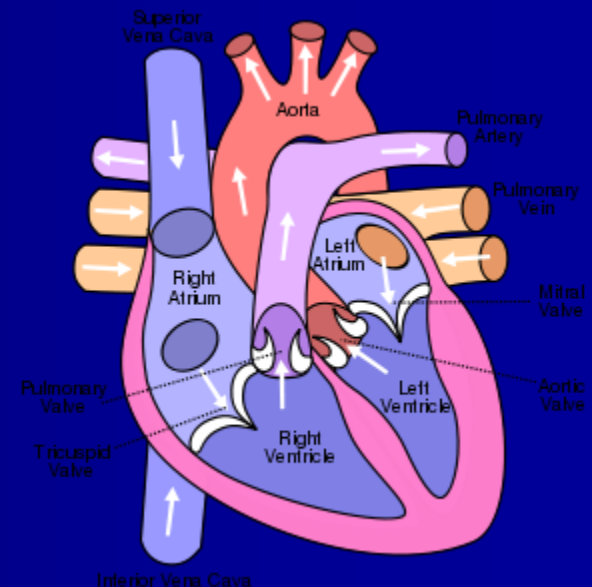
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**Faiz Ghar, 2<sup>nd</sup> January 2012**



# CVD in Men and Women

- CVD mortality in men is holding steady; in women it is increasing
- 82% of coronary events in women are attributable to
  - unhealthy diet
  - lack of activity
  - cigarette use
  - overweight

FOR SALE:  
ONE HEART.  
HORRIBLE CONDITION.  
WILL TAKE ANYTHING FOR IT.  
  
PLEASE.   
  
JUST CUT IT OUT OF MY CHEST  
AND END THIS SUFFERING.

# Who is at Risk?

If we

- Smoke
- Have total cholesterols  $>240$  mg/dl
- Have diabetes
- Are obese or overweight
- Are depressed or excited



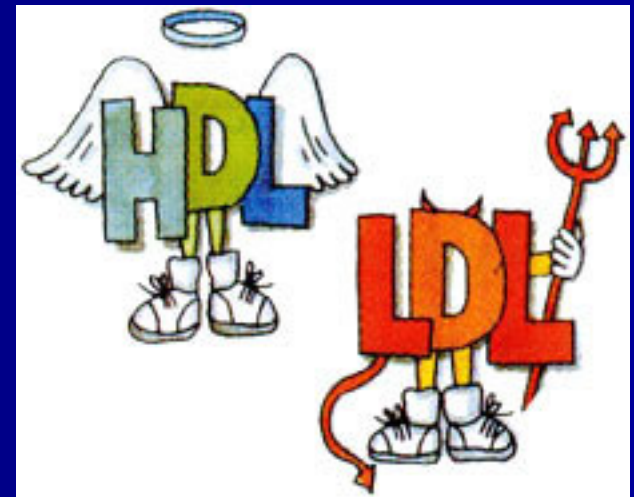
# Factors Increasing CVD Risk

- Diets high in saturated fat and cholesterol
- Cigarette smoking
- Cholesterol level, blood pressure, and EKG abnormalities
- High blood pressure
- Hypercholesterolemia
- Oxidized low-density lipoprotein (LDL)
- Obesity
- Menopause
- Adverse psychosocial issues
- Enlarged left ventricle

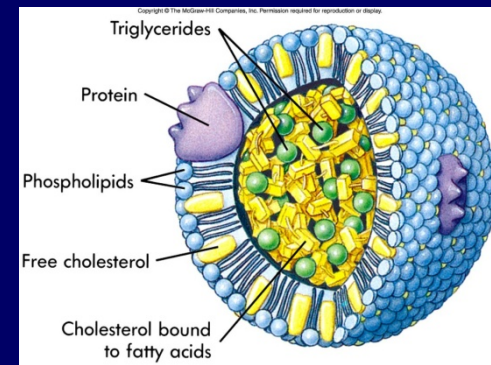


# Factors Decreasing CVD Risk

- Balanced diet
- Eating lesser than desired
- Avoiding red meat
- Regular fasting
- Moderate fluid intake
- No-smoking, no-alcohol
- Physical activity
- High levels of HDL
- Regular aspirin usage
- Social well being
- Positive thinking

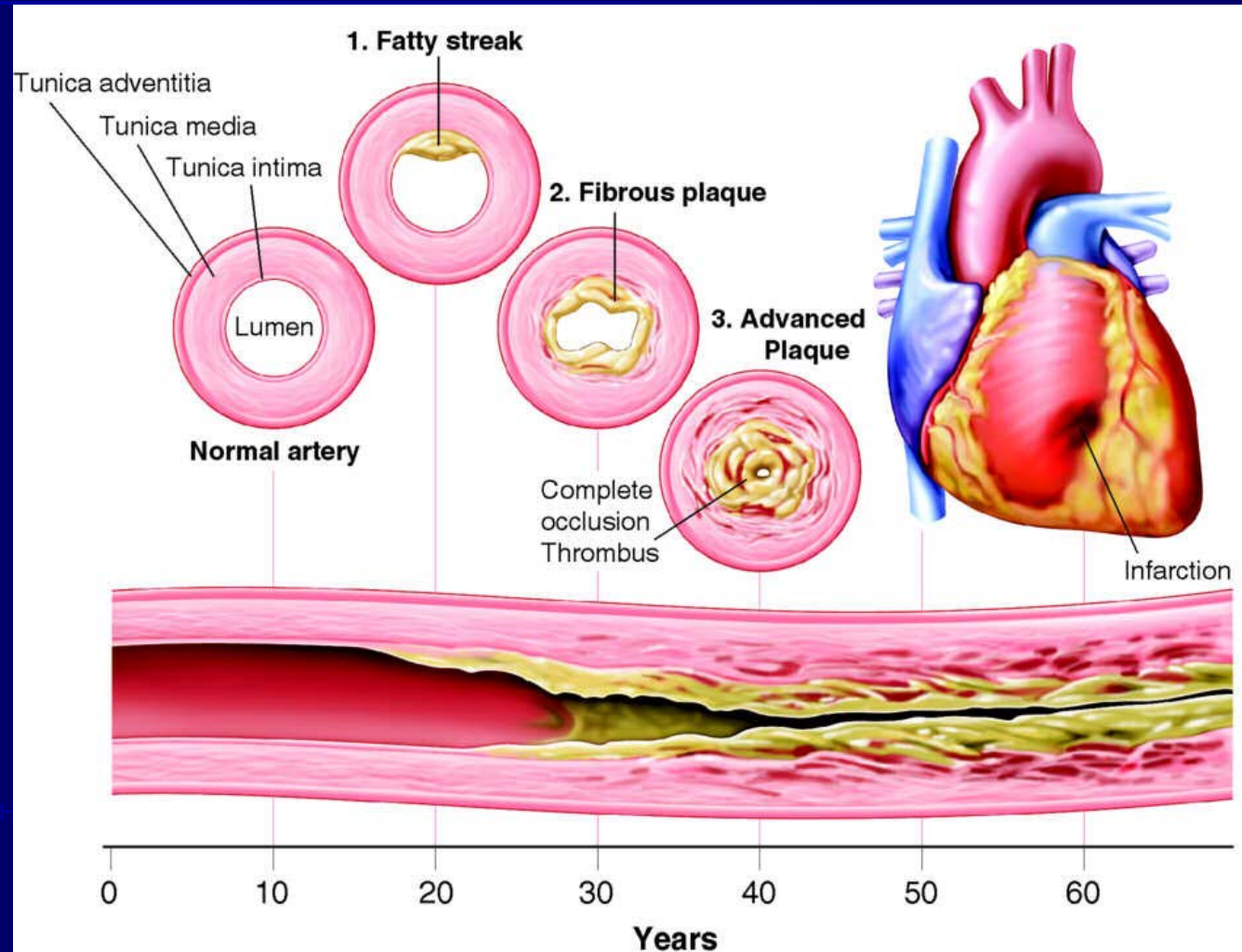


# Causes



- Impeded blood flow to the network of blood vessels serving the heart
- Major cause is atherosclerosis; structural and compositional changes in the inner wall of the arteries
- Dehydration
- Emotional stress
- Strenuous physical activity when not physically fit
- Eating a large, high-fat meal (increases risk of clotting)

# Natural Progression of Atherosclerosis



(From H



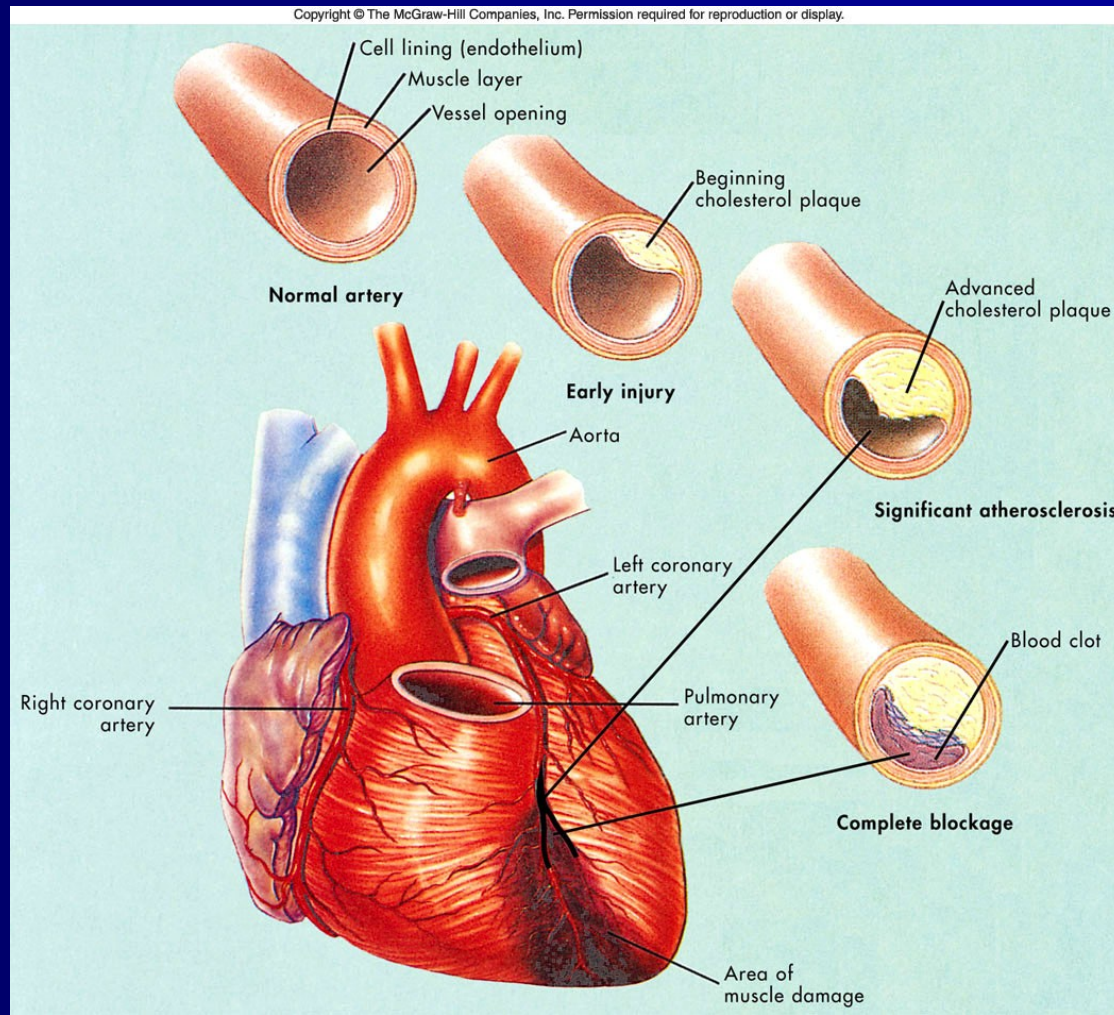
# Plaque or Atheroma

Lipid deposits and other materials  
(cellular waste products, calcium, fibrin)  
that build up in the intimal layer





# Heart Attack (Myocardial Infarction)



# Desirable Blood Parameters

1. Hypertension		
	Blood pressure	> 140/90
2. Dyslipidemia		
	Triglycerides	> 150 mg/ dL
	HDL- C	< 35 mg/ dL
3. Obesity (central)		
	Body mass index	> 30 kg/M2
	Waist girth	> 94 cm (37 inch)
	Waist/Hip ratio	> 0.9
4. Impaired Glucose Handling		
	Fasting blood glucose	> 110 mg/dL
	2hr.PG	>200 mg/dL

# Desirable Foods

General Recommendation	ADA Recommendation
<ul style="list-style-type: none"><li>• High fiber cereals and breads</li><li>• Fish (salmon and tuna)</li><li>• Legumes (beans and peas)</li><li>• Nuts (walnuts and almonds)</li><li>• Skim milk</li><li>• Blueberries</li><li>• Apples and oranges</li><li>• Carrots</li><li>• Tomatoes</li><li>• Spinach and kale</li></ul>	<ul style="list-style-type: none"><li>• Antioxidant Foods ()</li><li>• Fiber</li><li>• Calcium</li><li>• Soya</li><li>• Water</li><li>• Reduced salt</li><li>• Exercise</li><li>• Hydration</li><li>• Enjoy every bite</li></ul>
Mayo Clinic Recommendation	
<ul style="list-style-type: none"><li>• Olive oil</li><li>• Canola oil</li><li>• Margarine labeled "trans fat-free"</li><li>• Skinless white poultry meat</li><li>• Fat-free yogurt and cheese</li><li>• Egg white</li></ul>	<ul style="list-style-type: none"><li>• Whole-wheat flour and grains</li><li>• High-fiber cereal</li><li>• Brown rice</li><li>• Oatmeal</li><li>• Fresh veggies and fruits</li><li>• Legumes</li></ul>

# Undesirable Foods

## General Recommendation

Deficient in fruits and vegetables and other plant based foods

Too low in fiber and too high in refined (processed) grains

Too high in saturated fats from animal foods

Too high in trans fats from fast food meals and packaged goods.

Too high in sodium and refined sugar from commercially baked goods

## Mayo Clinic Recommendation

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>• Butter</li><li>• Gravy</li><li>• Cream sauce</li><li>• Nondairy creamers</li><li>• Hydrogenated margarine (ghee)</li><li>• Cocoa butter, found in chocolate</li><li>• Coconut and palm-kernel oils</li></ul> | <ul style="list-style-type: none"><li>• Doughnuts</li><li>• Biscuits</li><li>• Quick breads</li><li>• Cakes</li><li>• Egg noodles</li><li>• Buttered popcorn</li><li>• High-fat snack crackers</li><li>• Chips</li></ul> |
|--|--|

# Thanks

